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ABSTRACT

This report summarizes the findings of the pilot administration of the Colorado Survey of first- and third-year teachers and their administrators. These surveys reflect the opinions of the teachers and administrators regarding the effectiveness of Colorado teacher preparation institutions in preparing teachers to meet performance-based standards. The pilot administration was designed to refine the survey and research techniques. The surveyed teachers were not educated under the new standards, and the results of this survey cannot be used to judge the current effectiveness of Colorado institutions of higher education in preparing teacher candidates to meet the new standards. A total of 2,142 surveys were sent to Colorado-prepared teachers who had completed their first or third years, and an equal number of surveys were sent to their supervisors. In all, 517 teachers and 975 administrators responded. Results are not reported from one teacher education institution from which there was a very low response rate. The Colorado Department of Education believes that the surveys generated a respectable overall response rate, although low rates of return from a few institutions, especially those that prepare fewer teachers, are a concern. Survey results also indicate that the methods used to analyze the data are both fair and effective, and that future administrations of the survey will result in valid program assessments. Results of this administration only yield information about the relative effectiveness of institution to each other, but it is expected that the survey will provide information about the effectiveness of institutions relative to the state's standards once the teachers surveyed have been prepared under those standards. Appendixes contain the teacher and administrator surveys. Attached to this report is a technical report on the survey that covers design and development and survey analysis in more detail. (Contains 15 tables.) (SLD)

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Results of the Pilot Administration: November 2000

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April 2001

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TABLE OF CONTENTS

Acknowledgements i
Results of the Colorado Survey of 1st and 3rd Year Teachers and their Administrators ii
Introduction 1
Colorado Survey Development Timeline 2
Pilot Administration Results 3
- Response Rates 3
- Demographics of Respondents 4
- Survey Analyses 5
- Interpretation 7

Conclusion 13
Appendix A - Teacher Survey 15
Appendix B - Administrator Survey 18

Technical Report
Legislative Authority T-1
Survey Design and Development T-1
- 1st & 3rd Year Survey Coverage-Item x Standards T-1

Teacher and Administrator Identification and Survey Piloting T-3
- 1st & 3rd Year Survey Administration & Corresponding Graduating Class T-3

Survey Analysis T-3
- Inter-Section Correlation on Teacher Surveys T-4
- Inter-Section Correlation on Administrator Surveys T-4

Endorsement Level Coding T-4

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Colorado Survey of 1st and 3rd Year Teachers and their Administrators

Results of the Pilot Administration: November 2000

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Results of the Colorado Survey of 1st & 3rd Year Teachers and their Administrators

Pilot Administration: November 2000

By
Gary Lichtenstein, Ed.D.
Quality Evaluation Designs
April 2001

Introduction

This report summarizes the findings of the pilot administration of the Colorado Survey of 1st and 3rd Year Teachers and their Administrators. These surveys reflect the opinions of teachers and school administrators regarding the effectiveness of Colorado teacher preparation institutions in preparing teachers to meet performance-based standards adopted by the Colorado State Board of Education (SBE) and the Colorado Commission on Higher Education (CCHE). Until 2004, the surveys will be administered to respondents who were prepared under a different set of standards. The primary purpose of this administration was to refine the survey, distribution lists, and methods of analyses. Because the teachers surveyed were not prepared under these new standards, the current results are inappropriate for making any program approval decisions. The results of the survey cannot be used to judge the current effectiveness of Colorado institutions of higher education in preparing teacher candidates to meet the newly adopted standards.

Background

As part of Senate Bill 154, passed in 1999, the Colorado legislature enacted provisions to survey educators about the quality of teacher preparation in Colorado. Specifically, teachers in their first and third years of teaching in Colorado are to be distributed surveys that probe their opinions about their teacher preparation as it relates to the SBE's Performance-Based Standards for Colorado Teachers and the CCHE's Colorado Teacher Education Performance Measures (see *Technical Report: Legislative Authority*).

In June 2000, Quality Evaluation Designs (QED) was contracted to develop, administer, analyze, and report findings of the survey. Survey development began immediately, in cooperation with staff from the Colorado Department of Education (CDE) and CCHE, and the Colorado Survey Committee, a group selected to represent higher education professors of education, professors of statistics and educational measurement.

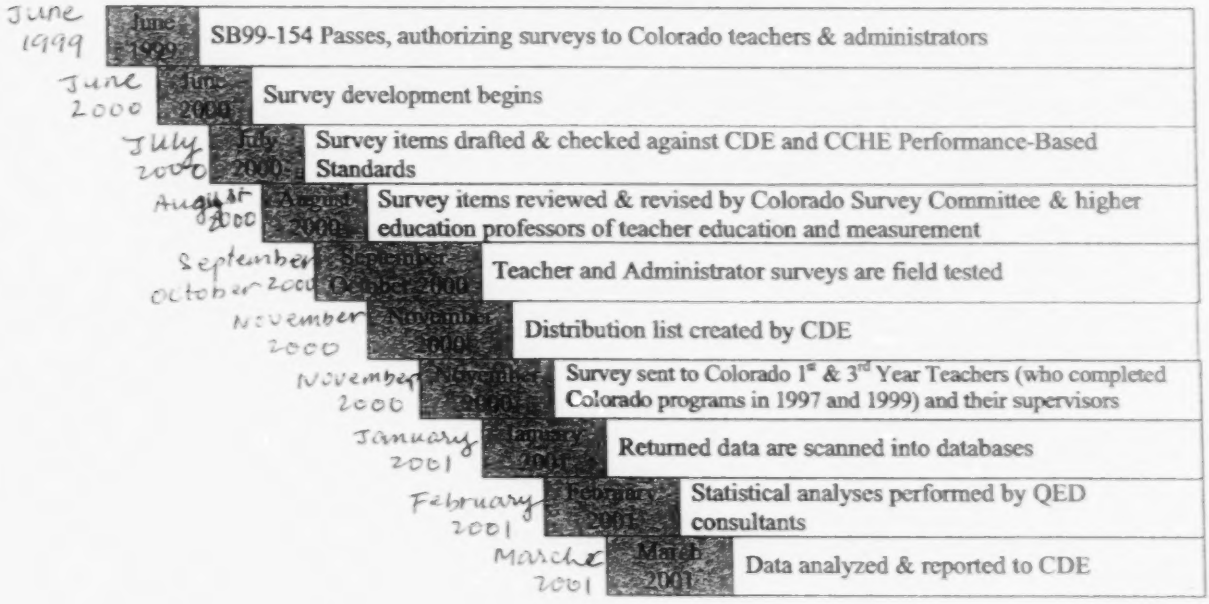
Each survey item is based on performance standards documents: CCHE Colorado Teacher Education Performance Measures (7/12/2000) and SBE Performance-Based Standards for Colorado Teachers (1/13/2000). Survey items were reviewed and revised by representatives from CDE and CCHE in July 2000, and then by representatives of the Colorado Survey Committee in August 2000 (see *Technical Report: Survey Design & Development*). In

September and October 2000, surveys were field tested with the cooperation of teachers and administrators in Douglas County Re 1 school district, the University of Colorado at Denver, and the University of Denver.

CDE staff used database information to 1) identify Colorado-prepared teachers who completed their preparation in spring of 1999 and 1997, and 2) create distribution lists based on this information in order to send surveys to teachers and their supervisors (see *Technical Report: Teacher & Administrator Identification and Survey Piloting*). Surveys were sent out in November 2000, along with a cover letter explaining the project and the importance of returning the survey, and a postage paid return envelope (see Appendices A and B: *Teacher and Administrator Surveys*). To ensure integrity of the responses, each survey contained a bar code that was scanned into the database upon return of the surveys in order to prevent duplicated responses.

In January 2001, Denver-based J-Deko Technologies, under the close supervision of Dr. Lichtenstein, scanned surveys into databases. Care was taken that all returned surveys were accounted for and that surveys were accurately scanned. Accuracy rate of the process is 99%-100%. The data were then analyzed by Quality Evaluation Designs consultant Kadriye Ercikan-Alper, professor of education and measurement at the University of British Columbia, who has extensive expertise in statistics and survey analysis. Surveys were scored using a Non-linear Principal Components Analysis. Each survey response was summarized as a single score. This report is based on the findings from those analyses.

COLORADO SURVEY DEVELOPMENT TIMELINE


June 1999
SB99-154 Passes, authorizing surveys to Colorado teachers & administrators
June 2000
Survey development begins
July 2000
Survey items drafted & checked against CDE and CCHE Performance-Based Standards
August 2000
Survey items reviewed & revised by Colorado Survey Committee & higher education professors of teacher education and measurement
September October 2000
Teacher and Administrator surveys are field tested
November 2000
Distribution list created by CDE
November 2000
Survey sent to Colorado 1st & 3rd Year Teachers (who completed Colorado programs in 1997 and 1999) and their supervisors
January 2001
Returned data are scanned into databases
February 2001
Statistical analyses performed by QED consultants
March 2001
Data analyzed & reported to CDE

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Pilot Administration Results

Response Rates

A total of 2,142 surveys were sent to Colorado-prepared teachers who had completed only one year or only three years of teaching in Colorado. An equal number of surveys were sent to their supervisors.

The overall response rate for teachers was 25.42%. There are a total of 15 higher education institutions from which respondents had been prepared. The response rates varied by institution represented from a low of 11.90% to a high of 34.82%. Among teachers, there were no significant differences in the response rates among first versus third year respondents. Nor were there significant differences between first and third year response rates based on endorsement level (K-12, elementary, secondary).

The overall response rate among administrators was 47.94%[1]. Response rates varied to the extent that they represented teachers of Colorado teacher preparation programs from a low of 33.33% to a high of 65.67%. Two institutions (Ft. Lewis College and University of Colorado at Colorado Springs) evidenced greater response rates from administrators of first year teachers compared to third year teachers. However, since correlations between first and third year responses overall were so high, and because the overall response rates from these two institutions were not significantly different from the mean response rate from institutions overall, QED deemed these differences unsubstantial.

To protect against possible response bias, first and third year response rates of each institution were compared with the response rate of institutions overall. Among Teacher Surveys, Colorado Christian University evidenced a response rate significantly below the overall response rate ($p<.05$). Accordingly, the Teacher Survey results from this institution are not reported. In addition, Colorado College alumni returned only 8 surveys (response rate = 24%). Because of the low number of surveys (less than 10), these results are not reported. Among Administrator Surveys, two institutions, the University of Denver and the University of Colorado at Boulder evidenced response rates significantly below the overall response rate. Administrator Survey results from these institutions are, accordingly, not reported. In the future, the state can initiate follow-up requests to teachers and administrators in order to boost response rates where necessary.

No significant differences were found in the response rates by endorsement level between first year and third year teachers or their administrators.

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[1] *Don't Know* responses among Administrator Surveys ranged as high as 12%-50% for several items, preventing large numbers of surveys from being included in the overall analysis. As a result, 37% were useable in all analyses. Survey design in future administrations will result in increased number of useable responses.

SURVEY RESPONSE RATES BY RECOMMENDING INSTITUTION

	Teacher Survey		Administrator Survey	
	%	(# Returned)	%	(# Returned)
Adams State College	27%	(20)	50%	(37)
Colorado Christian University	12%	(5)[a]	38%	(16)
Colorado College	24%	(8)[a]	47%	(16)
Colorado State University	25%	(36)	51%	(74)
Fort Lewis College	30%	(19)	51%	(32)
Mesa State College	34%	(27)	57%	(45)
Metropolitan State College	23%	(83)	45%	(160)
Regis University	32%	(50)	53%	(78)
Univ. of Colorado at Boulder	20%	(42)	41%	(85)[a]
Univ. of Colorado at Colorado Springs	21%	(14)	66%	(44)
Univ. of Colorado at Denver	26%	(39)	46%	(70)
University of Denver	22%	(20)	33%	(30)[a]
University of Northern Colorado	24%	(104)	48%	(209)
University of Southern Colorado	35%	(39)	54%	(60)
Western State College	33%	(11)	58%	(19)
Overall Response Rate	**25%**	**(517)**	**48%**	**(975)**

[a] *Survey results not reported due to significantly low survey response rate or fewer than 10 responses overall.*

Demographics of Respondents

Of the 517 teachers who responded, 301 were teachers who had completed one year of teaching, and 215 had completed three years of teaching. A total of 60/517 (12%) hold K-12 endorsements, 265/517 (51%) hold elementary endorsements, and 192/517 (37%) hold secondary endorsements. As mentioned above, no significant differences were found in the overall responses by endorsement level between first and third year teachers.

Of the 975 administrators who responded, 547 supervised first year teachers, 428 supervised third year teachers. Of these, 126/975 (13%) supervised teachers endorsed in K-12 subjects, 478/975 (49%) supervised elementary teachers, and 371/975 (38%) supervised secondary teachers. Again, no significant differences were found by endorsement level between first and third year teachers.

OVERALL RESPONSE BY ENDORSEMENT LEVEL

Endorsement	Teachers	Administrators
K-12	12%	13%
Elementary	51%	49%
Secondary	37%	38%
Total	**100%**	**100%**

Survey Analyses

Items 6-8 on the Teacher Surveys focused on the extent to which teachers met with their academic advisors during their teacher preparation. The following table summarizes those results. Note that undergraduate advising is not reported in cases where the respondent attended a different institution as an undergraduate than the institution where teacher preparation was completed.

FREQUENCY OF ADVISING DURING TEACHER PREPARATION*^

	Undergraduate Major			Education Coursework		
	Never	Less than once per year	Once or more per year	Never	Less than once per year	Once or more per year
Adams State College	0	4	16	0	4	16
Colorado Christian University	0	0	4	0	2	3
Colorado College	0	0	0	1	1	4
Colorado State University	2	14	11	6	12	18
Fort Lewis College	2	2	5	0	6	11
Mesa State College	1	7	14	1	3	23
Metropolitan State College	6	23	24	7	31	42
Regis University	0	4	14	2	4	44
Univ. of Colo. at Boulder	7	11	9	7	14	20
Univ. of Colo. at Colorado Springs	2	3	2	0	0	14
Univ. of Colo. at Denver	0	4	6	5	12	21
University of Denver	0	0	0	4	2	12
University of Northern Colorado	3	25	53	22	32	48
University of Southern Colorado	2	7	24	0	7	31
Western State College	0	2	6	0	2	9
Total Responses	**25**	**106**	**188**	**55**	**132**	**316**

**As of July 2000, CCHE Performance Standards require that candidates meet with their advisors at least once per year. (This requirement was not in effect when respondents completed their preparation programs.)*

^ Several respondents wrote in a Don't Know response to these questions, presumably because they couldn't remember. Therefore, institution totals may be lower in this table than the overall response totals reported earlier in this report.

The Colorado Survey Committee, upon the recommendation of QED statistics consultants, agreed to summarize the surveys using a single number, instead of trying to analyze each standard assessed. In order to validly and reliably assess teachers' and administrators' perspectives on the effectiveness of recommending institutions on each performance-based standard, several questions would have had to be asked about each standard, which would lengthen the survey and reduce response rates. The survey provides much more solid information when all items are combined into a single score reflecting institutions' overall success implementing performance-based standards.

Teacher and Administrator Surveys were examined to see whether it was appropriate to combine the sub-sections within each survey. No significant differences were found within any

of the sections between frequency distributions of first versus third year teachers, or between administrators of first versus third year teachers. Accordingly, responses of first and third year teachers and their supervisors were combined on each section of the two surveys. Significant correlations between survey sections confirmed the appropriateness of combining all sections into a single score (see *Technical Report: Survey Analyses*).

Results of the Non-linear Principal Components Analysis (NPCA) are provided in the tables below. NCPA provides a summary of each survey. Surveys representing the 15 Colorado institutions are examined as a group and a mean (average) is calculated. In these analyses, the mean of all institutions is artificially set at 0, with a standard deviation of 1.

TEACHER SURVEY RESULTS

	Number Responding	*Average Score**	*Standard Deviation*
Adams State College	20	-.17	.957
Colorado Christian University	*5*	*NR*	*NR*
Colorado College	*8*	*NR*	*NR*
Colorado State University	36	.27	.958
Fort Lewis College	19	-.10	.842
Mesa State College	27	-.31	.735
Metropolitan State College	83	-.30	.925
Regis University	50	.37	1.174
Univ. of Colo. at Boulder	42	-.04	1.051
Univ. of Colo. at Colorado Springs	14	.69	1.031
Univ. of Colo. at Denver	39	.11	1.207
University of Denver	20	.13	1.172
U. Northern Colorado	104	-.22	.839
U. Southern Colorado	39	.15	1.019
Western State	11	.37	1.291

NR Data not reported due to low response.
* Scale range is –4 to +4.

QED conducted analyses to determine whether responses varied by endorsement level (see *Technical Report: Endorsement Level Coding*). Among teachers, no significant differences were found across institutions by endorsement level—K-12, elementary, secondary—(df=2, F=.102, p=.903). However, differences by endorsement levels within institutions were almost significant (df=23, F=2.62, p=.064). This means that significant differences may exist between teachers from different endorsement levels within the same institution. Among administrators, no significant differences were found by endorsement levels overall (df=2, F=.095, p=.909). However, significant differences did emerge by endorsement level within institutions (df=19, F=2.346, p=.001).

When institution data are broken into the three endorsement levels, the numbers are too small to perform meaningful analyses. In future administrations, however, we can pool

responses of former administrations and conduct such analyses. Doing this will help identify strengths and weaknesses by endorsement level for each institution.

ADMINISTRATOR SURVEY RESULTS

	Number Responding	*Average Score**	*Standard Deviation*
Adams State College	36	-.17	.853
Colorado Christian University	16	-.20	.799
Colorado College	15	.28	.629
Colorado State University	74	-.24	.744
Fort Lewis College	32	.02	.946
Mesa State College	45	.40	1.726
Metropolitan State College	159	.11	1.079
Regis University	78	.01	.830
Univ. of Colo. at Boulder	*84*	*NR*	*NR*
Univ. of Colo. at Colorado Springs	44	.10	.956
Univ. of Colo. at Denver	70	-.19	1.267
University of Denver	*30*	*NR*	*NR*
U. Northern Colorado	209	-.01	1.022
U. Southern Colorado	60	.06	1.096
Western State	19	.36	1.460

NR Data not reported due to low response.
* Scale range is –3 to +3.

Interpretation

What do these numbers mean? Again, these data were collected on teachers prepared under different standards than those measured by the survey. Therefore, the survey is not yet valid for any kind of decision-making. However, we can answer two important questions.

Question #1: How similar were Colorado institutions in 1997 & 1999 in preparing Colorado teachers for standards implemented in 2000?

The tables on pages 6 and 7 show the distribution of mean survey scores by institution. We can understand these numbers by making a simple conversion of those scores. This conversion allows us to look at the profile of responses among various institutions, but does not allow us to summarize them into a single number. This is because it is statistically invalid to take simple averages of data that are not interval. When you are counting miles, for example, the distance between each interval (mile) is the same. But with data based on opinion, as these are, the distance between an *Agree* response and a *Strongly Agree* response is not equal to the distance between an *Agree* response and a *Disagree* response. The NPCA statistical analyses that generated the data on pages 6 and 7 can accommodate such differences, but the converted data cannot.

The range of all teacher ratings from the NPCA analyses are from –4 to +4. In the table below, we show the percent of Teacher Survey responses that fall within that range for each institution. For example, we can look at Teacher Survey results for Adams State College. Looking at Score Range 2, the table shows that 20% of the returned surveys from Adams State College alumni fell between -2 and –1 on the NPCA analysis, or Score Range 2. Next we see that 35% of Adams State College teachers' mean ratings on the NCPA analysis fell in Score Range 3 (or between –1 and 0 on the NPCA analysis). The same percentage—35%—also fell within Score Range 4, or NPCA responses of 0 and 1. In the following table, percentages are shown for each institution and institutions overall.

RESPONSE DISTRIBUTION OF TEACHER SURVEYS*

		Score Range						
	NPCA Mean →	1 *(below-2)*	2 *(-2 to -1)*	3 *(-1 to 0)*	4 *(0 to 1)*	5 *(1 to 2)*	6 *(2 to 3)*	7 *(over 3)*
	# Resp							
Adams State College	20		20%	35%	35%	10%		
Colo. Christian Univ.^	5	--	--	--	--	--	--	--
Colorado College^	8	--	--	--	--	--	--	--
Colorado State Univ.	36		14%	25%	42%	17%	3%	
Fort Lewis College	19		5%	63%	21%	5%	5%	
Mesa State College	27		15%	63%	15%	4%	4%	
Metropolitan State Col	83	2%	19%	43%	27%	6%	2%	
Regis University	50		8%	36%	30%	14%	10%	2%
U C at Boulder	42	5%	5%	52%	21%	12%	2%	2%
U C at Color. Springs	14			36%	21%	36%	7%	
U C at Denver	39	3%	18%	36%	21%	15%	8%	
University of Denver	20	5%	10%	40%	15%	25%	5%	
Univ. of Northern Co	104	2%	11%	58%	21%	6%	3%	
Univ. of Southern Co	39	3%	8%	35%	39%	8%	8%	
Western State College	11		9%	36%	27%	9%	18%	
OVERALL	**517**	**2%**	**12%**	**45%**	**26%**	**11%**	**5%**	**0%**

*Institution totals not equaling 100% are due to rounding error.
^ Data not reported due to low survey response.

The table above shows a clustering of responses at between 3-4 in the Score Range, with 71% of all teacher responses falling within that range. There is some variation across institutions, but this variation is not generally dramatic. Some of the variation within institutions might be explained by different responses within endorsement programs, which can be explored in future administrations. Overall, however, we can see that ratings among institutions are fairly closely clustered, rather than spread across the entire range.

As the table below shows, scores among administrators were less varied than those of teachers. The overall range of NPCA scores was from –3 to +1, with a clear majority of administrator ratings falling between 0 and 1. The profile of these results is similar to the results of past administrations of an earlier survey, where administrators overall showed higher ratings than teachers did and less variation. Again, as with the teacher data, ratings cluster between

Score Range 3 and 4, with a higher concentration of scores in Score Range 4 (or 0 to1) on the NPCA analyses.

RESPONSE DISTRIBUTION OF ADMINISTRATOR SURVEYS*

		Score Range			
	NCPA Mean→	1	2	3	4
	# Resp.	*(below -2)*	*(-2 to -1)*	*(-1 to 0)*	*(0 to 1)*
Adams State College	15	--	13%	33%	53%
Colorado Christian University	8	--	--	38%	63%
Colorado College	4	--	--	25%	75%
Colorado State University	8	13%	13%	--	75%
Fort Lewis College	14	--	--	50%	50%
Mesa State College	15	27%	--	27%	47%
Metropolitan State College	67	2%	6%	22%	70%
Regis University	36	--	8%	22%	70%
Univ. of Colo. at Boulder^	30	--	--	--	--
Univ. of Colo. at Colorado Springs	16	--	6%	38%	56%
Univ. of Colo. at Denver	16	--	--	29%	71%
University of Denver^	16	--	--	--	--
U. Northern Colorado	79	3%	13%	25%	67%
U. Southern Colorado	22	--	--	32%	68%
Western State	5	--	--	60%	40%
OVERALL	**359**	**3%**	**5%**	**28%**	**64%**

*Institution totals not equaling 100% are due to rounding error.
^ Data not reported due to low survey response.

These data answer the question posed earlier: *How similar were Colorado institutions in 1997 & 1999 in preparing teachers for standards implemented in 2000?* The answer is that Colorado teacher preparation institutions show similar profiles in terms of teachers' and administrators' ratings on current CDE and CCHE performance standards. That is, institutions did not vary too much in their quality of preparation relative to current standards.

Question #2: In what areas were Colorado teacher preparation institutions strong overall and in what areas might they focus increased attention in order to better prepare graduates under SB154 Performance Based Standards, if they haven't already?

QED conducted an analysis of the percent of *Agree* responses (*Agree + Strongly Agree*) to each survey item. For the analysis of both the Teacher and Administrator Surveys, we used all responses that fell into Score Range 3 and 4. Among Teacher Surveys, Score Range 3 and 4 encompassed 71% of all surveys returned. Also, because responses lower than 3 and higher than 4 tended to cancel each other out, using the percent of *agree* responses best represented the profile of results. Among Administrator Surveys, Score Ranges 3 and 4 represented 92.7% of all responses. Data from both analyses are presented on the following pages.

Table of Item Responses—Teachers

Score Range 3 & 4 Only; representing 367/517 respondents (71%)

Item #	STEM	% Agree (Agree + Strongly Agree)
9	The quality of advising I received related to completing my *undergraduate major* was adequate.	66%
10	The quality of advising I received related to completing my *teacher education program* was adequate.	81%
11	Overall, the content of my teacher education courses was relevant to my field experiences (i.e., observations and student teaching).	81%
12	My subject matter coursework sufficiently prepared me to teach in my endorsement area.	76%
13	My college/university student teaching supervisor had adequate knowledge about K-12 classroom practices.	90%
14	During student teaching, I received adequate feedback from my college/university faculty supervisor.	86%
15	My cooperating teacher (in student teaching) was a good professional role model.	92%
16	When I completed my program, I felt prepared to teach.	89%
17	I had the opportunity to teach Colorado Model Content Standards in my field experiences, including student teaching.	86%
During my preparation program, I received adequate preparation in:		
18	Using rubrics for classroom assessment.	65%
19	Using classroom assessment for improving student achievement.	66%
20	Preparing students for the Colorado Student Assessment Program (CSAP).	13%
21	Developing assessments that measure learning in a standards-based classroom.	59%
22	Developing assessments that are consistent with district curriculum.	65%
23	Using subject matter knowledge to design effective curriculum.	84%
24	Using subject matter knowledge in lesson planning.	65%
25	Understanding theories about classroom management.	84%
26	Using a variety of classroom management techniques.	76%
27	Communicating effectively with students' parents/guardians.	59%
28	Practicing a variety of instructional methods.	92%
29	Modifying instruction for gifted learners.	52%
30	Modifying instruction for English language learners.	25%
31	Implementing individualized education plans (IEPs).	38%
32	Using technology (such as computers) to improve student learning.	64%
33	Teaching students computing skills.	43%
34	Understanding public influence over schools (including parents, business, advocacy groups).	54%
36	Understanding school governance at the state, district, and school levels.	52%

37	**Relative to the needs within your endorsement/teaching area, please assess the effectiveness of your teacher education program in preparing you in the following specific areas:**	**% Adequate** (Adequate + Good)
	a. Phonics instruction	45%
	b. Instructing students in spelling	39%
	c. Teaching standard English language usage	57%
	d. Teaching writing strategies	56%
	e. Teaching vocabulary development	57%
	f. Using reading assessments to plan reading instruction	57%
	g. Instructing students in number sense	58%
	h. Utilizing Colorado Model Content Standards in reading and writing for lesson planning	58%
	i. Using Colorado Model Content Standards in mathematics for lesson planning	55%

Table of Item Responses—Administrators

Score Range 3 & 4 only; Representing 333/359 Respondents (93%)

Item #	STEM	% Agree (Agree + Strongly Agree)
	This teacher:	
7	Has sufficient subject matter knowledge related to the initial endorsement area.	100%
8	Implements a variety of classroom assessments.	98%
9	Uses classroom assessment for improving student achievement.	96%
10	Effectively prepares students for the Colorado Student Assessment Program (CSAP).	96%
11	Develops assessments that are aligned with standards.	98%
12	Develops assessments that are consistent with district curriculum.	99%
13	Uses subject matter knowledge to design effective curriculum.	98%
14	Uses subject matter knowledge to enrich lessons.	99%
15	Practices effective classroom management.	96%
16	Communicates well with parents/guardians.	99%
17	Practices a variety of instructional methods.	99%
18	Modifies instruction for gifted learners.	92%
19	Modifies instruction for English language learners.	92%
20	Implements individualized education plans (IEPs).	96%
21	Uses technology (such as computers) to improve student learning.	96%
22	Understands the school's role in promoting a democratic society.	99%
23	**Relative to the needs within the initial license endorsement/teaching area, please assess the effectiveness of the teacher in the following specific areas:**	**Adequate** (Adequate + Good)
	a. Phonics instruction	94%
	b. Instructing students in spelling	95%
	c. Teaching standard English language usage	98%
	d. Teaching writing	96%
	e. Teaching vocabulary	97%
	f. Reading instruction	95%
	h. Utilizes Colorado Model Content Standards in reading and writing for lesson planning	97%
	i. Integrates mathematics and number sense into instruction	97%
	j. Uses Colorado Model Content Standards in mathematics for lesson planning	95%

Teacher Survey data reveal a low of 13% *Agree* responses for item #20 (*Preparing Students for C-SAP*) to a high of 92% *Agree* responses for item #15 (*Cooperating Teacher was a good role model*). Most survey items were rated between 50%-75% *Agree* responses. Responses related to CCHE performance standards were consistently high, with items 10-17 all being rated from 81%-92% *Agree*. The items rated lowest included:

Preparing students for C-SAP (13% *Agree*)
Modifying instruction for English language learners (25% *Agree*),
Implementing individualized education plans (38% *Agree*)
Teaching students computing skills (43% *Agree*).

Data from administrators tell a somewhat different story. Among 93% of the valid surveys, administrators provided 92%-100% *Agree* responses to all items. This response would suggest that administrators believe that teachers who completed their preparation in 1999 and 1997 were prepared to meet performance standards implemented in 2000. However, data from administrators were limited due to a high number of *Don't Know* responses, which made only 37% of returned surveys useable for overall analyses. In future administrations, we will provide a means by which to include a much higher proportion of returned surveys in the analyses.

Conclusion

QED believes that the 1st and 3rd year Teacher and Administrator Surveys generated a respectable overall response rate. Low response rates from a couple of institutions, especially those that prepare fewer teachers, are a concern. In the future, the state may need to send out follow-up requests. The number and completeness of responses suggest that survey items are clear and that the survey, overall, is not difficult to complete. QED will, however, recommend minor changes for future administrations. Administrator surveys will need to be modified to limit missing data. We suspect that as the survey results continue to be distributed and publicized, response rates will increase. Furthermore, we believe that the response rates by endorsement level were good. Within institutions, preparation programs often vary by endorsement type, so as responses accumulate, endorsement area analyses (and therefore representation) will be important.

QED also believes that the methods used to analyze the data are both fair and effective, and that future administrations of the survey will result in valid program assessments. Correlations across the various sections are high, which suggests that the survey, indeed, addresses an institution's overall effectiveness in preparing teachers on CDE and CCHE performance-based standards.

All of this speaks only to the psychometrics of the instrument and its ability to generate valid numbers. It is important to realize that the results generated by this administration only reflect institutions' effectiveness relative to one another. In fact, policy makers are more interested in institutions' effectiveness relative to CDE and CCHE performance standards themselves—and rightly so.

To use an analogy, in a regular foot race we are most interested in the relative rankings of the runners. We can tell "who wins" simply by noting who comes in first, second, third, etc. But

teacher preparation is not a foot race. If anything, it's more like a high jump, where the bar is set at a height that everyone is expected to clear. These survey results cannot tell us the height of the bar. It is up to educators and policy makers to set that height. Only by doing so can we know the true meaning of survey results. Ultimately, we want everyone to clear the bar. Some might clear it more than others, but Colorado citizens want to be assured that those who graduate Colorado's teacher education programs have met the standards created by policy makers.

Therefore, *standard setting* is the next step. Standard setting is a process whereby educators and policy makers determine what scores constitute acceptable results on this survey. Certain psychometric tools can guide that process, but the decision is ultimately policy-based. Colorado is in an excellent position to undertake this process, because now there are baseline data; that is, data that reflect effectiveness of institutions in meeting current performance-based standards before those standards were implemented. We believe that the state now has an excellent tool for rating teachers' and administrators' perceptions of an institution's overall effectiveness in implementing performance-based standards. Those perceptions can be described by a single number. Educators and policy makers can now make those numbers meaningful by determining the levels teacher preparation institutions must reach in order to be considered effective at preparing Colorado teachers in performance-based standards.

The following pages—Appendices A & B—include reproductions of the Colorado 1st & 3rd Year Teacher and Administrator Surveys.

Actual surveys were formatted using different software. Surveys on the following pages are accurate in terms of content, and generally accurate in terms of formatting. Actual surveys were more crisply formatted (i.e., better line spacing and bubbles lined up). --QED

APPENDIX A: TEACHER SURVEY

STATE OF COLORADO
1st & 3rd Year Teacher Survey
for the Improvement of Teacher Education

Please complete by DECEMBER 8. USE ENCLOSED ENVELOPE OR RETURN TO:
Colorado Department of Education, Office of Professional Services—Rm 501, 201 E. Colfax Avenue, Denver, CO 80203

Section I: Are You A 1st or 3rd Year Teacher?

Note: It is important that ONLY teachers in their first or third years of teaching complete this survey.

A. Please read the following 2 questions carefully and answer appropriately:

	Yes	No
Since receiving your teaching license, have you taught full-time or part-time for AT LEAST 1 year but not more than 1.5 years?	○	○
Since receiving your teaching license, have you taught full-time or part-time for AT LEAST 3 years but not more than 3.5 years?	○	○

B. If you answered **YES** to one of the questions above, please **proceed to Section II**.

OR

If you answered **NO to BOTH questions** above, please **RETURN this survey**. You need not continue.

Section II: Basic Demographic Information

The following information is VERY IMPORTANT for assuring that your responses are interpreted correctly. The demographic information that appears below (and your responses on the rest of the survey) is for statistical purposes only and will not be released to your college or university, supervisor, school district or the public.

A. Important information is summarized below. Please answer questions 1-4 based on this information:

CDE DATABASE INFORMATION HERE:
1. Recommending Institution
2. Initial Endorsement
3. School District employed
4. School of employment

	Correct	*Incorrect*	*Correction (if above information is Incorrect)*
1. Institution where I completed teacher preparation:	○	○	_____
2. Endorsement is:	○	○	_____
3. School District is:	○	○	_____
4. School is:	○	○	_____

B. IMPORTANT QUESTION ABOUT YOUR PREPARATION	Yes	No
5. Have you, as a licensed teacher, EVER taught a course in the endorsement area listed in #2, above?	○	○

If you answered **YES** to #5, above, then **please answer the following survey questions** ONLY in terms of the endorsement area for which you were prepared in your teacher preparation program.

If you answered **NO** to #5, above, **please return this survey**. You need not continue.

Section II: Questions About Your Preparation Program

	Yes	No
6. Did you complete your teacher preparation program (i.e., education coursework, student teaching) at the same institution where you completed your undergraduate major?	○	○

	Never	Less Than Once Per Year	Once or More Per Year
7. I met with a faculty advisor in my *undergraduate major* to discuss my program progress:	○	○	○
8. I met with *a teacher education* faculty advisor to discuss my program progress:	○	○	○

	Strongly Disagree	*Disagree*	*Agree*	*Strongly Agree*
9. The quality of advising I received related to completing my *undergraduate major* was adequate.	○	○	○	○
10. The quality of advising I received related to completing my *teacher education program* was adequate.	○	○	○	○
11. Overall, the content of my teacher education courses was relevant to my field experiences (i.e., observations and student teaching).	○	○	○	○
12. My subject matter coursework sufficiently prepared me to teach in my endorsement area.	○	○	○	○
13. My college/university student teaching supervisor had adequate knowledge about K-12 classroom practices.	○	○	○	○
14. During student teaching, I received adequate feedback from my college/university faculty supervisor.	○	○	○	○
15. My cooperating teacher (in student teaching) was a good professional role model.	○	○	○	○
16. When I completed my program, I felt prepared to teach.	○	○	○	○
17. I had the opportunity to teach Colorado Model Content standards in my field experiences, including student teaching.	○	○	○	○

Section III: Questions About Your Preparation

During my teacher preparation program, I received <u>adequate preparation</u> in…	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
18. Using rubrics for classroom assessment	○	○	○	○
19. Using classroom assessment for improving student achievement	○	○	○	○
20. Preparing students for the Colorado Student Assessment Program (CSAP)	○	○	○	○
21. Developing assessments that measure learning in a standards-based classroom	○	○	○	○
22. Developing assessments that are consistent with district curriculum	○	○	○	○
23. Using subject matter knowledge to design effective *curriculum*	○	○	○	○

During my teacher preparation program, I received adequate preparation in...	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
24. Developing assessments that are aligned with standards	O	O	O	O
25. Understanding theories about classroom management	O	O	O	O
26. Using a variety of classroom management techniques	O	O	O	O
27. Communicating effectively with students' parents/guardians	O	O	O	O
28. Practicing a variety of instructional methods	O	O	O	O
29. Modifying instruction for gifted learners	O	O	O	O

During my teacher preparation program, I received adequate preparation in...	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*
30. Modifying instruction for English language learners	O	O	O	O
31. Implementing Individualized Education Plans (IEPs)	O	O	O	O
32. Using technology (such as computers) to improve student learning	O	O	O	O
33. Teaching students computing skills	O	O	O	O
34. Understanding public influence over schools (including parents, business, advocacy groups)	O	O	O	O
35. Understanding the school's role in promoting a democratic society	O	O	O	O
36. Understanding school governance at the state, district, and school levels	O	O	O	O

Section IV—Preparation in Specific Skills

Note: Laws enacted in Colorado in 1999 require that all teachers in Colorado be prepared in the following areas.

37. Relative to the needs within your endorsement/teaching area, please assess the effectiveness of your teacher education program in preparing you in the following specific areas:	*Very Poor*	*Poor*	*Adequate*	*Good*
a. Phonics instruction	O	O	O	O
b. Instructing students n spelling	O	O	O	O
c. Teaching standard English language usage	O	O	O	O
d. Teaching writing strategies	O	O	O	O
e. Teaching vocabulary development	O	O	O	O
f. Using reading assessments to plan reading instruction	O	O	O	O
g. Instructing students in Number Sense	O	O	O	O
h. Utilizing Colorado Model Content Standards in Reading & Writing for lesson planning	O	O	O	O
i. Using Colorado Model Content Standards in Mathematics for lesson planning.	O	O	O	O

Thank you for your time and cooperation~Good luck in your teaching!

APPENDIX B: ADMINISTRATOR SURVEY

STATE OF COLORADO
1st & 3rd Year Administrator Survey for the Improvement of Teacher Education

Please complete by DECEMBER 8. USE ENCLOSED ENVELOPE OR RETURN TO:
Colorado Department of Education, Office of Professional Services—Rm 501, 201 E. Colfax Avenue, Denver, CO 80203

Section I: Basic Demographic Information

We are interested in the quality of preparation of the following teacher. The information you provide is confidential and will be used only for analyses that aggregate results of all teachers from specific Colorado teacher preparation programs. **Complete the survey ONLY for the teacher whose name appears in the box, and ONLY in terms of the Initial License Endorsement Area.**

CDE DATA BASE INFORMATION HERE:

1. Teacher Name:
2. Initial License Endorsement Area:
3. School District:
4. School:

IMPORTANT INFORMATION	YES	NO
5. I am a supervisor for the above named teacher:	○	○
6. I have supervised this teacher when he/she has taught at least one course in the endorsement area listed in #2, above:	○	○

NOTE=> If you answered "NO" to either Question 5 OR Question 6, please discontinue completing this survey and return it to CDE in the envelope provided. Thank you.

Section II: Questions About This Teacher's Overall Preparation

[redacted]	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*	Don't Know
This teacher:					
7. Has sufficient subject matter knowledge related to the initial endorsement area	○	○	○	○	○
8. Implements a variety of classroom assessments	○	○	○	○	○

[redacted]	*Strongly Disagree*	*Disagree*	*Agree*	*Strongly Agree*	Don't Know
9. Uses classroom assessment for improving student achievement	○	○	○	○	○
10. Effectively prepares students for the Colorado Student Assessment Program (CSAP)	○	○	○	○	○

APPENDIX B: ADMINISTRATOR SURVEY

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
11. Develops assessments that are aligned with standards	O	O	O	O	O
12. Develops assessments that are consistent with district curriculum	O	O	O	O	O
13. Uses subject matter knowledge to design effective curriculum	O	O	O	O	O
14. Uses subject matter knowledge to enrich lessons	O	O	O	O	O
15. Practices effective classroom management	O	O	O	O	O
16. Communicates well with parents/guardians	O	O	O	O	O
17. Practices a variety of instructional methods	O	O	O	O	O
18. Modifies instruction for gifted learners	O	O	O	O	O
19. Modifies instruction for English language learners	O	O	O	O	O
20. Implements Individualized Education Plans (IEPs)	O	O	O	O	O
21. Uses technology (such as computers) to improve student learning	O	O	O	O	O
22. Understands the school's role in promoting a democratic society	O	O	O	O	O

Section III—Preparation in Specific Skills

23. Relative to the needs within the initial license endorsement/teaching area, please assess the effectiveness of the teacher in the following specific areas: Inadequate Adequate Good Don't Know

	Very Poor	Inadequate	Adequate	Good	Don't Know
a. Phonics instruction	O	O	O	O	O
b. Instructing students in spelling	O	O	O	O	O
c. Teaching standard English language usage	O	O	O	O	O
d. Teaching writing	O	O	O	O	O
e. Teaching vocabulary	O	O	O	O	O
f. Reading instruction	O	O	O	O	O
h. Utilizes Colorado Model Content Standards in Reading & Writing for lesson planning	O	O	O	O	O
i. Integrates mathematics and number sense into instruction	O	O	O	O	O
j. Uses Colorado Model Content Standards in Mathematics for lesson planning.	O	O	O	O	O

Thanks Very Much For Your Time & Insights

Colorado Survey of 1st & 3rd Year Teachers and their Administrators

Technical Report

By
Gary Lichtenstein, Ed.D.
Quality Evaluation Designs
April 2001

I. Legislative Authority

Legislative authority for the Colorado 1st and 3rd Year surveys to teachers and their supervisors is granted by SB99-154, 22-60.5-116(2), C.R.S. Legislative authority for surveying Colorado Department of Education (CDE) Performance-Based Standards is found in Section 22-2-109 (1)(g)-(h) and (3)(a)-(h), C.R.S. Authority for surveying Colorado Commission of Higher Education (CCHE) Colorado Teacher Education Performance Measures is in SB99-154, 23-1-121 (2)(a)-(f), C.R.S.

II. Survey Design & Development

Teacher and Administrator Surveys were designed based on CDE's Performance-Based Standards for Colorado Teachers (Adopted 1/13/00) and CCHE's Colorado Teacher Education Performance Measures (7/12/00). Items were created based on CDE and CCHE respresentatives' assessment of 1) the most important provisions of the standards and QED's assessment of which standards could be most appropriately assessed on a survey. Items were drafted by QED, then revised based on extensive feedback from CDE and CCHE staff. On August 8, 2000, QED met with the Colorado Survey Committee, comprised of CDE and CCHE staff as well as representatives from Colorado institutions of higher education, including professors of teacher education and experts in statistics and measurement. Items were further refined based on feedback from that group. Also at that meeting, important decisions were made regarding survey design and piloting. Subsequently, drafts of the surveys were posted on an electronic listserve, created and maintained by CDE especially for posting information about the Colorado Surveys. The listserve is accessible to all Colorado Deans of Education and others who they designate as appropriate. In September and October 2000, versions of the survey were field tested with teachers in the Douglas County School District, and with teachers and administrators enrolled in courses at University of Denver and the University of Colorado, Denver. The following shows the alignment of survey items with CDE and CCHE Performance-Based Standards.

1st & 3rd Year Survey Coverage—Items x Standards: November 2000 Pilot Survey

CDE Standards	Survey Item(s)	
	Teacher	Administrator
Standard 1: Knowledge of Literacy		
1.1 Plan & organize reading instruction based on assessment	37f	--
1.2 Phonics and linguistic skills related to reading instruction	37 a, b	23 a, b
1.4 Support reading & writing development	37 c, d, e	23 c, d, e, f
1.5 Use CO content standards in reading & writing for instruction	37 h	23 h
Standard 2: Knowledge of Mathematics		
2.1 Develop in students understanding and use of basic math skills	37 g	23 i
2.2 Use CO content standards in math for instruction	37 I	23 j

CDE Standards	Survey Item(s)	
	Teacher	Administrator
Standard 3: Knowledge of Standards & Assessment		
3.3 Develop and utilize a variety of informal and formal assessments	18, 19	8, 9
3.5 Use assessment data as a basis for standards-based instruction	21	11
3.7 Prepare students for C-SAP and other achievement tests	20	10
3.8 Ensure that instruction is consistent with CO content standards	24	--
Standard 4: Knowledge of Content		
4.1 Utilize content knowledge to ensure student learning	22	12
4.3 Apply expert content knowledge to enrich student learning	23	7, 13
Standard 5: Knowledge of Classroom and Instructional Management		
5.2 Apply sound disciplinary practices in the classroom	25, 26	15
5.8 Communicate with parents/guardians effectively	27	16
Standard 6: Knowledge of Individualized Instruction		
6.1 Employ a wide range of instructional techniques	28	17
6.2 Design/modify instruction to meet needs of exceptional learners	29, 30	18, 19
6.5 Develop and apply individualized education plans (IEPs)	31	20
Standard 7: Knowledge of Technology		
7.2 Use technology to increase student achievement	32	21
7.5 Instruct students in basic technology skills	33	--
Standard 8: Democracy, Educational Governance & Careers in Teaching		
8.1 Model and articulate democratic ideal to students	35	22
8.3 Influences on educational practices	34, 36	--
CCHE Standards		
Standard b: Ongoing screening and counseling of teacher candidates by practicing teachers or faculty members		
(1): Faculty meet at least once per year with candidates	7, 8, 9, 10	--
Standard c: Course work and field experience that integrates theory, practice, and standards-based training	11, 16, 17	--
Standard d: Candidates complete a minimum of 800 hours of field experience that relates to predetermined learning standards		
(3.2): Students are provided strong role models in student teaching	13, 15	--
Standard e: Demonstrate skills required for licensure as specified by the State Board of Education		
(4): Student teachers are provided continuous feedback and support from college faculty during student teaching	14	8-23
Standard f: Assessment of candidates subject matter knowledge		
(3): First year teacher is able to apply content knowledge in the K-12 classroom	12, 23, 24	7

III. Teacher & Administrator Identification & Survey Piloting

The survey assesses standards that Colorado teacher preparation programs must follow in preparing new teachers. These standards were adopted in 2000 and teacher education programs were redesigned to comply with these standards in 2000-2001. Therefore, this survey currently assesses teachers on standards that were not in force when the teachers were enrolled in their preparation programs. In Spring 2004, the survey will be administered to teachers prepared under the performance-based standards. The table below shows the administration dates of the Colorado Surveys and the classes from which first and third year teachers who will complete the surveys graduated.

1st & 3rd Year Survey Administration & Corresponding Graduating Class

	Fall 2000	Spring 2002*	Spring 2004**
1st Year	Class of 1999	Class of 2001	Class of 2003
3rd Year	Class of 1997	Class of 1999	Class of 2001

* Survey is valid for program approval for 1st year teachers only.

** Survey is valid for program approval for 1st & 3rd year teachers.

Survey respondents were identified by crossing two CDE databases: the licensure database, which shows the year a candidate's license was issued and the recommending institution, and the human resources database, updated annually based on district-submitted information that details teachers' names, number of years teaching, and current teaching position. Using this information, CDE generated a list of teachers to be sent surveys, and an identical list to the teachers' school principals. Questions on Teacher and Administrator surveys confirmed respondents' eligibility to complete the survey. Teachers who had not taught either one or three years were ineligible, as well as teachers who had never taught in their endorsement area. Administrators were ineligible if they had not supervised the first or third year teacher identified on the survey the administrator received. If the administrator had not supervised the teacher in the specific endorsement area noted on the survey, the administrator was ineligible to complete the survey.

Item #6 on the Teacher Survey asks whether a candidate completed teacher preparation at the same institution where he or she completed his or her undergraduate major. If the answer was "no," items related to undergraduate advising (#7, #9, and #12) were eliminated from the analyses.

Using LabelVision 2000 software, bar codes were put on each survey. Bar codes identified the last four digits of the teacher's social security number, recommending institution, endorsement, number of years taught (1 or 3), school district and school. Returned surveys were scanned using Remark OMR software to create response databases. This software captures exact images of each survey, flags double or ambiguous responses, then organizes data into ASCII, Access, and/or SPSS database files. The bar code software ensures that each respondent returned only one survey.

IV. Survey Analysis

Survey response rates were calculated based on the number of eligible surveys returned.

Surveys were analyzed using the Non-linear Principal Components Analysis (NPCA) of SPSS. NPCA was deemed the optimal method for these analyses for two primary reasons. First,

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optimal scaling (of which NCPA is a component of) is designed to be used on non-interval data. Second, NCPA is a more effective method than item response theory (IRT) when analyzing a relatively small number of
cases, which was the case in the by-institution analyses. For more on NPCA, visit: www.spss.co.kr/cool/papers/optimal_scaling.htm (note: use underline (_) between "optimal" and "scaling."

First, QED looked at the different sections of the Teacher and Administrator surveys to be sure that results were similar in each section. Initial analyses sought to confirm that correlations among these sections were moderate to high for both Teacher and Administrator surveys. Correlations between first and third year teachers were compared on each section, and then on all sections. No significant differences between first and third year teachers were found on sectional correlations in either Teacher or Administrator surveys. Accordingly, responses for first and third year teachers were combined. Inter-section correlations were high and positive, as the table below shows. Based on these results, responses on all sections were combined into a single score.

Inter-Section Correlation on Teacher Surveys (n=517)

	Section II	Section III	Section IV	All Sections
Section II	1.000	.728**	.435**	.811**
Section III		1.000	. 529**	.949**
Section IV			1.000	.714**
All Sections				1.000
**Correlation significant at p<.01 (2-tailed)				

Inter-Section Correlation on Administrator Surveys (n=359)

	Section II	Section III	All Sections
Section II	1.000	.663**	.961**
Section III		1.000	.837**
All Sections			1.000
**Correlation significant at p<.01 (2-tailed)			

V. Endorsement Level Coding

Endorsement level was determined using the following coding. Numbers reflect CDE endorsement codes:

K-12
Art (020000)
Physical Education (080300)
Music (120100)
Special Education (198120, 198130, 198160, 198170)

Elementary
Elementary Education (180100)
Early Childhood Education (180101)
Early Childhood Special Ed (191801, 198180)
Linguistically Different (230821)

Secondary

Agriculture (010000)
Business Education (032300)
English Language Arts (050000)
Speech (050500)
Theatre (050600)
Languages (060208, 060209, 060219)
Home Economics (090000)
Industrial Arts (100000)
Mathematics (110000)
Science (130101)
Social Studies (150000)
Middle School (180200)

STATE